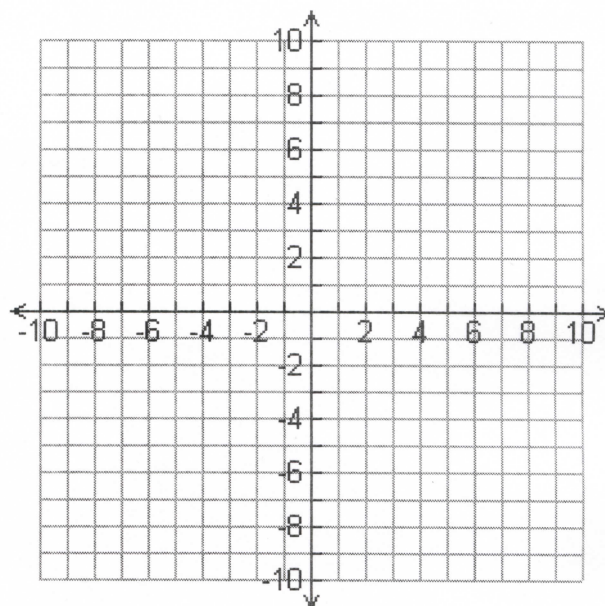


Name _____ Date _____ Period _____

Student Performance Task Geometry Practice

Performance Task Scenario

Noah's house is located at $(-6,1)$. His friend George lives at $(2,1)$ and their school is at $(2,7)$.



#1 The first day of school, Noah starts at his house, picks up George, then continues to school. How far does Noah travel? Show your work.

#2 The second day of school, Noah travels from his house directly to school. How far does Noah travel? Show your work.

<p>#3 On the way home from school, Noah stops at a gas station. The gas station is halfway between the school and his house. What are the coordinates of the gas station? Show your work.</p>	<p>#4 George walked with Noah from school to the gas station. If there was a path directly from the gas station to George's house, how far would George travel to get back home? Show your work.</p>
<p>#5 Classify the triangle (by sides and angles) created by Noah's house, George's house and the school. Justify your classifications.</p>	
<p>#6 Compare the two routes that Noah could take to school. Which route is shorter and by how much? Explain your reasoning.</p>	

G.GPE.4 Use coordinates to prove simple geometric theorems algebraically, such as prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle or that given point lies on a circle.

<http://www.rcampus.com/rubricshowc.cfm?code=CAB4XB&sp=true&>

1. Distance

- 5 – Correct answer with work shown.
- 4 – One computation error with work shown.
- 3 – Two computation errors with work shown.
- 2 – More than two computation errors, or correct answer with no work shown.
- 1 – Work is not understandable or appropriate, but student justified their work.
- 0 – No attempt made to solve the problem, or attempt was not relevant.

2. Distance or Pythagorean Theorem

- 5 – Correct answer with work shown.
- 4 – One computation error with work shown.
- 3 – Two computation errors with work shown.
- 2 – More than two computation errors, or correct answer with no work shown.
- 1 – Work is not understandable or appropriate, but student justified their work.
- 0 – No attempt made to solve the problem, or attempt was not relevant.

MIDPOINT

3. ~~Distance or Pythagorean Theorem~~

- 5 – Correct answer with work shown.
- 4 – One computation error with work shown.
- 3 – Two computation errors with work shown.
- 2 – More than two computation errors, or correct answer with no work shown.
- 1 – Work is not understandable or appropriate, but student justified their work.
- 0 – No attempt made to solve the problem, or attempt was not relevant.

	<p>4. Distance Formula</p> <p>5 – Correct answer with work shown.</p> <p>4 – One computation error with work shown.</p> <p>3 – Two computation errors with work shown.</p> <p>2 – More than two computation errors, or correct answer with no work shown.</p> <p>1 – Work is not understandable or appropriate, but student justified their work.</p> <p>0 – No attempt made to solve the problem, or attempt was not relevant.</p>
<p>G.CO.10 Prove theorems about triangles.</p>	<p>5. Response Question</p> <p>5 - Provides clear, coherent explanation. Shows a full understanding through their explanation. Explanation is completely free of mathematical errors and/or misuse of mathematical terms.</p> <p>4 - Provides reasonably clear, coherent explanation. Shows a full understanding through their explanation. Explanation is mostly free of mathematical errors and/or misuse of mathematical terms.</p> <p>3 - Completes the problem satisfactorily, but the explanation may be muddled and not fully appropriate. Explanation may have some significant mathematical errors and/or misuse of mathematical terms.</p> <p>2 - Begins the problem but may fail to complete or may omit significant parts of the problem. Explanation has some significant mathematical errors and/or misuse of mathematical terms.</p> <p>1 - Explanation is not understandable or appropriate. Explanation has several significant mathematical errors and/or misuse of mathematical terms.</p> <p>0 - Words do not appropriately reflect the problem. Explanation has several significant mathematical errors and/or misuse of mathematical terms. No attempt made to solve the problem or copies parts of the problem without</p>

	<p><i>attempting a solution.</i></p>
	<p>6. Compare and Contrast</p> <p>5 - Provides clear, coherent explanation. Shows a full understanding through their explanation. Explanation is completely free of mathematical errors and/or misuse of mathematical terms.</p> <p>4 - Provides reasonably clear, coherent explanation. Shows a full understanding through their explanation. Explanation is mostly free of mathematical errors and/or misuse of mathematical terms.</p> <p>3 - Completes the problem satisfactorily, but the explanation may be muddled and not fully appropriate. Explanation may have some significant mathematical errors and/or misuse of mathematical terms.</p> <p>2 - Begins the problem but may fail to complete or may omit significant parts of the problem. Explanation has some significant mathematical errors and/or misuse of mathematical terms.</p> <p>1 - Explanation is not understandable or appropriate. Explanation has several significant mathematical errors and/or misuse of mathematical terms.</p> <p>0 - Words do not appropriately reflect the problem. Explanation has several significant mathematical errors and/or misuse of mathematical terms. No attempt made to solve the problem or copies parts of the problem without attempting a solution.</p>
Standards of Mathematical Practice	
<p>CCSS.Math.Practice.MP2 Reason abstractly and quantitatively. Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to <i>decontextualize</i>—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to <i>contextualize</i>, to</p>	